

What is claimed is:

1. A wireless communication system protected against outage, said system comprising:

- a transmitter comprising a transmitter apparatus designed to transmit radio signals; and
- a receiver comprising a receiver apparatus designed to receive the transmitted radio signals,

wherein

- said transmitter comprises an additional transmitter apparatus, said additional transmitter apparatus being designed to transmit optical signals through the air; and
- said receiver comprises an additional receiver apparatus being designed to receive the optical signals transmitted through the air.

2. A wireless communication system protected against outage, said system comprising:

- a transmitter comprising a transmitter apparatus designed to transmit optical signals through the air; and
- a receiver comprising a receiver apparatus designed to receive the through-air transmitted optical signals,

wherein

- said transmitter comprises an additional transmitter apparatus, said additional transmitter apparatus being designed to transmit radio signals; and
- said receiver comprises an additional receiver apparatus, said additional receiver apparatus being designed to receive radio signals.

3. A communication system according to claim 1, wherein said transmitter further comprises a splitter and said receiver further comprises a switching device.

4. A communication system according to claim 2, wherein said transmitter further comprises a splitter and said receiver further comprises a switching device.

5. A communication system according to claim 3, wherein the system further comprises:

a device designed to detect the received radio signal power value; and
a device designed to detect the received optical signal power value,
said switching device comprising changeover logic responsive to said power values of the radio signal and of the optical signal.

6. A communication system according to claim 4, wherein the system further comprises:

a device designed to detect the received radio signal power value; and
a device designed to detect the received optical signal power value,
said switching device comprising changeover logic responsive to said power values of the radio signal and of the optical signal.

7. A communication system according to claim 1, wherein said receiver apparatus designed to receive radio signals and said receiver apparatus designed to receive through-air transmitted optical signals are tuned at the transmission frequency of said transmitter apparatus designed to transmit radio signals and of said transmitter apparatus designed to transmit optical signals through the air, respectively.

8. A transmitter for wireless transmitting signals to a corresponding receiver, said transmitter comprising a transmitter apparatus designed to transmit

radio signals, wherein the transmitter further comprises a laser transmitter apparatus designed to transmit optical signals through the air.

9. A transmitter for wireless transmitting signals to a corresponding receiver, said transmitter comprising a transmitter apparatus designed to transmit optical signals through the air, wherein the transmitter further comprises a radio transmitter apparatus designed to transmit radio signals.

10. A transmitter according to claim 8, wherein it further comprises a splitter for feeding an identical decoded signal to a modulator of the radio transmitter apparatus and to an electrical/optical converter of the laser transmitter apparatus.

11. A transmitter according to claim 9, wherein it further comprises a splitter for feeding an identical decoded signal to a modulator of the radio transmitter apparatus and to an electrical/optical converter of the laser transmitter apparatus.

12. A receiver for receiving wireless-transmitted signals from a corresponding transmitter, said receiver comprising a receiver apparatus designed to receive radio signals, wherein it further comprises a laser receiver apparatus designed to receive optical signals through the air.

13. A receiver for receiving wireless-transmitted signals from a corresponding transmitter, said receiver comprising a receiver apparatus designed to receive through-air transmitted optical signals, wherein it further comprises a radio receiver apparatus designed to receive radio signals.

14. A receiver according to claim 12, wherein it further comprises a switching device to select one of said received optical and radio signals.

15. A receiver according to claim 13, wherein it further comprises a switching device to select one of said received optical and radio signals.

16. A receiver according to claim 14, wherein it further comprises:
a device designed to detect the received radio signal power value; and

a device designed to detect the received optical signal power value, and in that said switching device comprises changeover logical responsive to the power level of the received optical signal and radio signal.

17. A receiver according to claim 15, wherein it further comprises:

a device designed to detect the received radio signal power value; and

a device designed to detect the received optical signal power value, and in that said switching device comprises changeover logical responsive to the power level of the received optical signal and radio signal.

18. A method for wireless, transmitting/receiving signals in a manner protected against outage, said method comprising the steps of:

in transmission, receiving a signal to be transmitted, sending said signal to be transmitted to a radio modulator and providing such a signal to an antenna for transmitting radio signals;

in reception, receiving said radio signals through a receiving antenna,

wherein the method further comprises the steps of:

in transmission, providing a copy of said signal to be transmitted also to an electrical/optical converter and to a laser emitter to form a laser beam and transmitting such a signal through said laser beam,

in reception, receiving said signal transmitted through the laser beam and selecting one of said radio signal and said optical signal.

19. A method for wireless transmitting/receiving signals in a manner protected against outage, said method comprising the steps of:

in transmission, receiving a signal to be transmitted, sending said signal to be transmitted to an electrical/optical converter and to a laser emitter to form a laser beam and transmitting said signal by means of said laser beam,

in reception, receiving said signal transmitted by means of the laser beam,

wherein the method further comprises the steps of:

in transmission, providing a copy of said signal to be transmitted to a radio modulator and providing such a signal to an antenna for the transmission of radio signals,

in reception, receiving said radio signals through a receiving antenna and selecting one of said radio signal and said optical signal.

20. A method according to claim 18, wherein said step of selecting one of said radio signal and said optical signal comprises the step of detecting the power level both of the received radio signal and of the received optical signal.

21. A method according to claim 19, wherein said step of selecting one of said radio signal and said optical signal comprises the step of detecting the power level both of the received radio signal and of the received optical signal.

22. A method according to claim 20, wherein said step of selecting one of said radio signal and said optical signal comprises the step of outputting the radio signal from the receiver unless its power level at the receiver is basically corresponding to a threshold power level.

23. A method according to claim 21, wherein said step of selecting one of said radio signal and said optical signal comprises the step of outputting the radio signal from the receiver unless its power level at the receiver is basically corresponding to a threshold power level.

24. A method according to claim 22, wherein said step of selecting one of said radio signal and said optical signal comprises the step of outputting the optical signal from the receiver unless its power level at the receiver is basically corresponding to a threshold power level.

25. A method according to claim 23, wherein said step of selecting one of said radio signal and said optical signal comprises the step of outputting the optical

signal from the receiver unless its power level at the receiver is basically corresponding to a threshold power level.